As a high-quality graduate statistics student, the correct interpretation of confidence intervals in reporting statistical results should be chosen based on the most statistically accurate and modern understanding of their use. Here's the analysis:

- \*\*Option (A)\*\* suggests that confidence intervals are just another measure of uncertainty like p-values. While both do relate to uncertainty, they provide different information. Confidence intervals give a range of plausible values for the parameter, whereas p-values are about the probability of observing data as extreme as the observed data under the null hypothesis. This option oversimplifies the role of confidence intervals.

- \*\*Option (B)\*\* states that confidence intervals show the effect sizes that are most compatible with the data under the given model. This is a very modern and nuanced view, emphasizing the compatibility of the interval with the data, which aligns with contemporary statistical thinking where the focus is on estimation rather than just hypothesis testing.

- \*\*Option (C)\*\* suggests using confidence intervals instead of p-values by checking if the null value is in the interval. While this is a common practice, it still frames the confidence interval in the context of null hypothesis testing, which might not fully capture the broader utility of confidence intervals in understanding the effect size.

- \*\*Option (D)\*\* dismisses the use of confidence intervals altogether, which is not supported by statistical practice as confidence intervals provide valuable information beyond what p-values offer, particularly in terms of effect size estimation.

Given this analysis, the most comprehensive and modern interpretation, which aligns with advanced statistical education, would be:

\*\*(B) To show the effect sizes that are most compatible with the data under the given model\*\*

This option reflects the current best practice in statistics, where the focus is on estimation and understanding the range of plausible values for the parameter of interest, rather than merely testing a null hypothesis. It provides a richer interpretation of the data, focusing on the practical significance of results.